

20. Only XX% of the total preliminary 1997 budgeted direct costs for the Ameritech business units responsible for providing local exchange telephone services, also known as Ameritech's Core-Tel operations, is budgeted to AIIS. The remainder of Core-Tel costs, \$XXXXXXX, which contain most of the costs to serve retail customers, was excluded from our shared and common cost analysis. The XX% AIIS Core-Tel direct expense ratio is used as a general allocator to attribute 100% of Network's common costs and approximately 15% of the Centralized Services organizations' allocable common costs to AIIS.
21. The XX% AIIS general allocator is reduced to XX% for purposes of attributing allocable corporate common costs to AIIS. The XX% corporate common cost allocator is calculated by multiplying the XX% AIIS general allocator by XXX. The XX% approximates the level of corporate costs allocated to Ameritech's Core-Tel businesses excluding Network, Centralized Services and the Corporate organization itself.
22. To identify retail costs for the four organizations identified as sources of shared and common costs attributed to UNEs, we conducted interviews and performed analyses to classify costs into seven categories for these four organizations. This process is described in detail at pages 8 and 9 of my May 16, 1997 affidavit. One of the categories (category 3) was used to identify costs directly attributable to retail services and all identified retail costs were properly excluded from shared and common costs attributed to UNEs.
23. Corporate retail costs were specifically removed from the common cost pools prior to allocation to AIIS, and therefore from the amount allocated to the UNEs.
24. Dr. Ankum incorrectly defines the inclusion of \$XXXXXXX for Ameritech sponsored golf tournaments, skyboxes, etc. and \$XXXXXXX in corporate charitable contributions as retail corporate common costs allocated to AIIS. The nature of the costs described above are incurred by wholesale organizations throughout the U.S. in the normal course of their

business activities. The impact of removing these costs would result in an approximate XX% reduction to the common cost pool allocated to UNEs on a regionwide basis. The calculation of the reduction is shown below:

Total corporate costs asserted as retail related	\$	XXXXXXX
Corporate allocation % to AIIS	x	XX%
Amount allocated to AIIS	\$	XXXXXXX
AIIS % allocation to UNEs	x	XX%
Amount allocated to UNEs	\$	XXXXXXX

The impact of this reduction to Ameritech Michigan's specific UNEs is \$XXXXXXX based on Ameritech Michigan's extended TELRICs relative to Ameritech extended TELRICs regionwide [$\text{\$XXXXXXX} \times (\text{\$XXXXXXX}/\text{\$XXXXXXX})$]. This amounts to less than a penny reduction to the price of a basic Michigan unbundled loop.

25. Dr. Ankum, on page 70 of his June 5, 1997 affidavit, asserts that "in the AOC/State Administration (Centralized Services) IS (Information Services) costs Ameritech has failed to eliminate a number of expenses. An examination of these functions reveals that most of these costs should be assigned to Ameritech's retail operations." He then goes on to list various Information Services costs amounting to \$XXXXXXX that he recommends should be excluded from the common costs allocated to UNEs. Dr. Ankum's assertion is incorrect; all retail related Information Services costs have been eliminated from the common costs allocated to UNEs. First, I need to point out that \$XXXXXXX out of the \$XXXXXXX Information Services - General costs that Dr. Ankum asserts are retail-related directly relate to systems "supporting computer applications that allow Ameritech to establish, maintain, and change customer account information," as described in response No. 1 to MCI's Third Set of Interrogatories from the Ohio Generic Cost Proceeding (Case No. 96-922-TP-UNC) (the "Ohio UNE Cost Proceeding"). It is my understanding that these applications are critical to the service ordering and provisioning of UNEs.

26. Setting that aside, we recognized that the Information Services - General 1997 budget included activities and functions that solely benefit Ameritech's retail Core Telephone business. However, Ameritech's Core-Tel business unit transactions involving information services are most readily identifiable to specific business units based on estimated system usage, which is what we used as our basis for allocating these costs. This resulted in the use of a more cost causative allocation percentage, which more discretely allocates these costs to AIIS and ultimately to UNEs. The Information Services - General department derived an allocation percentage reflective of AIIS's estimated 1997 usage of the information systems relative to the other Core-Tel business units. AIIS only serves wholesale customers, therefore its information systems usage only reflects those activities necessary to the provision of wholesale services. This resulted in a XX% attribution of Information Services - General costs to AIIS, as opposed to XX% (the general allocation factor). The XX% difference between these two percentages reflects the fact that retail-oriented information systems and related support functions are not utilized by AIIS. Furthermore, the Information Services common costs attributed to AIIS are further reduced by XX% to reflect the fact that wholesale billing is recovered through the service coordination fee for UNEs.
27. Dr. Ankum asserts that AIIS directly budgets for information services, implying that information services costs have been double counted. This is not true, as the two cost groups referred to by Dr. Ankum relate to different system functions, components and hardware. The information services costs directly budgeted for by AIIS, and the unbundling segment in particular, relate to front-end applications and hardware necessary for the pre-ordering, ordering, provisioning, maintenance and repair, and billing of UNEs. However, these systems and applications are connected to massive "back-end" databases and applications related to customer information and Ameritech's underlying telephone network. These back-end databases and applications are developed, updated and maintained by the Information Services - General department within the Centralized Services organization, and represent a separate source of costs. The back-end databases

and applications are an inherent part of the common costs associated with Ameritech's Operational Support Systems ("OSS") used for providing UNEs.

***THE SHARED AND COMMON COSTS ATTRIBUTED TO AMERITECH'S UNEs
REFLECT ECONOMIES OF SCALE***

28. Dr. Ankum, on page 54 of his June 5, 1997 affidavit, asserts that "Ameritech's shared and common cost studies treat AIIS as a start-up company and prevents new entrants from sharing in the economies of scale of Ameritech." Dr. Ankum's assertion is unfounded; the AIIS business unit does not contain start-up costs. The AIIS business unit has been providing wholesale services since 1994. All organizational start-up costs associated with AIIS were borne by Ameritech in prior years. Moreover, many of the activities related to unbundling are not new, but have been disaggregated as a separate segment within the AIIS 1997 budget for the first time due to the Telecommunications Act of 1996 (the "Act"). Further, the costs identified as shared costs within the AIIS organization directly relate to unbundling. These ongoing costs reflect the number of administrative personnel and related expenditures (direct costs) necessary to meet CLEC demands for UNEs throughout 1997. As such, the AIIS shared costs directly attributed to UNEs are conservative, given that CLECs demand for UNEs is expected to increase over time and that Ameritech's wholesale business will likely grow relative to its retail business.
29. The shared and common costs attributed to UNEs reflect Ameritech's economies of scale. The shared and common costs identified in our study do not reflect AIIS as a stand-alone company. In fact, Ameritech's economies of scale are shared with new entrants by the very fact that the unbundling segment is one of many segments comprising AIIS. As such, the unbundling segment is only allocated a fraction of the costs associated with administrative support functions and activities performed by the AIIS business unit. Activities performed by the president, information services, finance and accounting, human resources, legal, etc. are administrative and operational support functions necessary to the provision of UNEs.

30. The AIIS business unit activities are further supported by functions performed by the Centralized Services, Network and Corporate organizations that are shared among numerous Ameritech business units. The activities performed by these organizations support the activities performed by the AIIS business unit as well as other Ameritech business units and organizations. In addition, these organizations perform support activities not housed within AIIS, but essential to AIIS and the unbundling segment. These activities include: treasury, investor relations, corporate strategy, corporate communications, public policy, federal relations, information services, network operations, network engineering, procurement, service integration and delivery, etc. It is obvious that new entrant carriers benefit greatly from Ameritech's regional organizational structure and the economies of scale it drives.

***THE METHODOLOGY USED TO ALLOCATE FORWARD-LOOKING
SHARED AND COMMON COSTS TO UNEs IS REASONABLE***

31. On page 52 of his June 5, 1997 affidavit, Dr. Ankum asserts that "An analysis of the Arthur Andersen study reveals that Ameritech is shifting a disproportionate amount of shared and common costs onto carriers that will purchase unbundled network elements." Dr. Ankum is incorrect. Our allocation methodology attributes a portion of the total shared and common costs to loop type UNEs as a group based upon extended TELRICs, consistent with our allocation of shared and common costs to all other UNE types.
32. The portion of shared and common costs attributed to the unbundled loop UNE category are then further attributed to each type of unbundled loop (basic business, coin, ISDN etc.) within the state and among loops in each of the three access areas (A, B and C) based on the forecasted relative number of loops. This methodology attributes the same dollar amount of shared and common costs to each loop type across all access areas because such costs are more a function of the total number of loops provided rather than cost differences between the loop types themselves.

33. By attributing shared and common costs equally among all unbundled loop types and access areas, Ameritech voluntarily chose to avoid attributing a higher amount of shared and common costs to loops in less competitive areas (e.g., access area C unbundled basic loops). Intuitively, access area A loops in urban areas will be subject to greater competition than those in access area B or access area C (rural areas). Moreover, CLECs will have more alternatives to obtain unbundled loops from other sources (e.g. competitive access providers and other CLECs) in urban areas and are more likely to construct their own facilities first in these areas.
34. Had Ameritech instead allocated shared and common costs to unbundled loops in each access area based on a fixed percentage mark-up, as has been advocated by Dr. Ankum, significantly more costs would have been allocated to less competitive access areas B and C. The flat dollar amount of shared and common costs attributed to loops across access areas is one form of a "fixed allocator" that results in lower prices of network elements that are least likely to be subject to competition, as described in paragraph 696 of the FCC Order.
35. On pages 53 and 54 of his June 5, 1997 affidavit, Dr. Ankum makes the following assertion: "in Ameritech's five state serving area, CLECs will purchase, according to Ameritech's estimates, about XX% of Ameritech's unbundled loops - - yet, the unbundled network elements and interconnection services to be purchased by CLECs are burdened with no less than XX% of Ameritech's corporate overhead expenses." Dr. Ankum's calculation is incorrect. Assuming that the XX% Dr. Ankum calculates represents CLECs' demand for Ameritech's unbundled loops, the XX% he calculates to represent corporate overhead is incorrect. Dr. Ankum calculates the XX% by dividing \$XXXXXXX the total amount of corporate shared and common costs allocated to UNEs, by the total 1997 corporate budget of \$XXXXXXX. The \$XXXXXXX consists of \$XXXXXXX of corporate shared costs and \$XXXXXXX of corporate common costs. Corporate common costs equates to what Dr. Ankum calls "corporate overhead", therefore the correct percentage is XX% ($\$XXXXXXX/\$XXXXXXX$), not XX% as Dr.

Ankum suggests. The \$XXXXXX of corporate shared costs specifically relate to UNEs. The activities underlying the corporate shared costs have to be performed in order to provide UNEs, whether those activities are performed by the Corporate organization or by personnel within the AIIS business unit. As Dr. Ankum has conceded in other proceedings, these corporate shared costs should be directly assigned and recovered from the cost-causers, to the extent feasible.

***DR. ANKUM'S SPECIFIC PROPOSED ADJUSTMENTS
TO THE SHARED AND COMMON COSTS ARE INAPPROPRIATE***

36. The most obvious flaw in the shared and common cost mark-up proposed by Dr. Ankum is the "mix and match" methodology that he uses to calculate his proposed percentage mark-up. Dr. Ankum first makes downward adjustments to the shared and common cost pools to purportedly make them more "forward-looking". Rather than apply these adjusted cost pools to his proposed adjusted TELRICs, however, Dr. Ankum divides his adjusted cost pools by Ameritech Michigan's extended TELRICs in order to derive his proposed percentage mark-up for shared and common costs. Dr. Ankum does this despite the fact that he proposes to apply these percentage mark-ups to his proposed adjusted TELRICs (which are substantially lower than Ameritech Michigan's TELRICs) to set Ameritech Michigan's UNE prices. The net effect of this approach is to eliminate approximately 70% of Ameritech Michigan's shared and common costs for UNEs. Deriving shared and common cost mark-ups in this fashion is totally self serving and contrary to any notion of cost causation.
37. I have determined what Dr. Ankum's shared and common cost mark-up percentage would be based on the extended TELRICs he is advocating. We estimate that Dr. Ankum proposes an overall 40% reduction to Ameritech Michigan's TELRIC studies. This results in a proposed extended TELRIC of \$XXXXXX calculated by multiplying Ameritech's regionwide extended TELRICs of \$XXXXXX by 60%. Dividing Dr. Ankum's alleged more "forward-looking" shared and common pools totaling \$XXXXXX

by his proposed adjusted extended TELRICs of \$XXXXXX results in a 23 % mark-up for shared and common costs.

38. Moreover, Dr. Ankum's assertion that use of his recommended lower TELRICs would likely increase demand for UNEs, thereby increasing the extended TELRICs and correspondingly lowering the mark-up percentage, is directly inconsistent with his testimony in the various state "TELRIC" cost proceedings that shared and common costs will increase proportionally with increases in demand. Moreover, I should note that Dr. Ankum offers no empirical analysis as to what, if any, increase in demand would actually occur. The most important point, however, is Dr. Ankum's failure to apply his adjusted shared and common cost pools to his proposed TELRICs for the purpose of determining his proposed percentage mark-ups. His failure to do so is illogical and result-oriented.
39. As I discussed earlier, the XX% AIIS general allocator is multiplied by XX% to reflect Ameritech's 1997 budgeted direct expenses of its Core-Tel businesses relative to all of its businesses excluding Network, Centralized Services and the Corporate organization itself. Dr. Ankum asserts on page 72 of his June 5, 1997 affidavit that the Core-Tel/non Core-Tel allocator should be XX%, rather than XX%, after adding "new ventures" to the denominator. However, Dr. Ankum's assertion results in a "double dipping" of the costs he proposes to exclude.
40. Unlike Ameritech's other organizations, the source of direct costs for Ameritech's "new ventures" are solely Corporate costs. Corporate costs are directly attributed to the "new ventures" through exception time reporting and direct assignment. Arthur Andersen determined that the Ameritech corporate strategy and treasury departments constituted the source of the vast majority of the "new ventures" costs. We reflected this in our study by explicitly excluding \$XXXXXX of corporate strategy and \$XXXXXX of treasury related "new ventures" costs from the allocable Corporate common cost pools. Dr. Ankum's suggestion that Corporate costs should be generally allocated to new

ventures, in addition to excluding the directly attributed Corporate costs that make up "new ventures", results in a double exclusion of "new venture" costs.

41. On page 73 of his June 5, 1997 affidavit, Dr. Ankum asserts that inclusion of mutual compensation costs in the AIIS budget results in too high an allocator. That assertion is wrong. In fact, as I have previously testified elsewhere, the removal of mutual compensation costs from the AIIS budget would result in an increase in the amount of common costs allocated to UNEs.
42. Dr. Ankum advocates removal of all of the Corporate and Centralized Service shared costs from the shared cost pool because they allegedly either are not of an ongoing nature or have been misassigned. He recommends that \$XXXXXXX of the Corporate and \$XXXXXXX of Centralized Services costs be reclassified to the common cost pool, so that these costs are recovered from both Ameritech Michigan's retail customers and its wholesale customers. Dr. Ankum does not discuss a recovery mechanism for the remaining shared costs, but again suggests that the costs not be recovered exclusively from CLECs.
43. UNE shared costs originate from three Ameritech organizations; Corporate, Centralized Services and AIIS. The majority, \$XXXXXXX of Corporate shared costs, which total \$XXXXXXX are directly associated with ongoing legal expenditures for unbundling and interconnection related activities. These legal activities involve outside counsel fees and in-house legal costs for ongoing and future arbitrations under the Act, activities related to statements of general available terms and conditions, UNE-related tariff filings, and UNE-related cost proceedings and resulting litigation. The remaining \$XXXXXXX of Corporate shared costs represents ongoing unbundling and interconnection activities performed by the corporate strategy and federal relations departments within the Corporate organization.

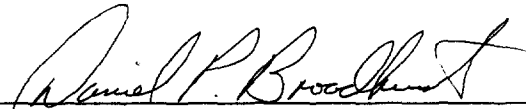
44. The Centralized Services UNE shared costs originate from the public policy and legal departments within the Centralized Services organization. The public policy shared costs and legal costs from Centralized Services that we identified amount to \$XXXXXXX and \$XXXXXXX respectively. The ongoing Centralized Services legal costs are similar to those incurred by the Corporate organization. The Public Policy shared costs consist of ongoing activities related to the updating of existing UNE TELRIC studies, the creation of TELRIC studies for new UNEs identified in future periods, costing work in connection with bona fide requests relating to unbundling, future Commission compliance filings and related data requests, UNE-related cost proceedings, statements of general available terms and conditions, tariff filings, ongoing and future arbitrations under the Act, and outside professional fees for various consulting services related to unbundling.
45. Shared costs for UNEs within the AIIS business unit amount to \$XXXXXXX. These ongoing costs have been specifically budgeted to the unbundling segment within AIIS and are, for the most part, general administrative functions supporting the unbundling service representatives and technicians involved in the actual pre-ordering, ordering, provisioning and maintenance and repair of UNEs. These support activities involve, among other things, network performance, technical planning, information technology, product managers, space related costs and human resources.
46. I do not agree with Dr. Ankum's proposed adjustments to the Corporate and Centralized Services shared cost pools. The shared costs we identified in the Corporate and Centralized Services organizations are ongoing forward-looking economic costs directly related to Ameritech's UNEs. The costs associated with unbundling and interconnection directly relate to the wholesale side of Ameritech's local exchange business, therefore any recovery of such costs from Ameritech Michigan's retail customers is totally inappropriate.
47. Dr. Ankum proposes that shared costs originating from the AIIS business unit be reduced by \$XXXXXXX to \$XXXXXXX.

48. Dr. Ankum uses a February 19, 1996 AIIS organization chart provided to him through a data request in the fall of 1996 to reassign "misallocated headcount" as the basis for his adjustments to the AIIS shared costs. He reduces the AIIS wages we identified as shared costs by \$XXXXXXX or 23.36%. Dr. Ankum then applies the 23.36% ratio to other categories (benefits, other employee related and contract services/other) of shared costs within AIIS. This results in an additional \$XXXXXXX decrease, or a total reduction of \$XXXXXXX to the AIIS shared costs.
49. Dr. Ankum's proposed adjustments are baseless and wrong. His adjustments are entirely based on the AIIS organization chart dated February 19, 1996, which is obviously not reflective of the organizational changes AIIS has had to make in response to the Telecommunications Act of 1996. Nor is it reflective of how AIIS will be staffed on a forward looking basis in order to conduct its unbundling-related activities. The Act itself was not issued until February 8, 1996. Although the same organization chart was included in our June/July 1996 study of AIIS shared and common costs binder which was provided to MCI in December 1996, Arthur Andersen used the organizational chart to merely get a basic understanding of the AIIS business unit; it did not use or rely on the organization chart to identify UNE shared costs within AIIS.
50. Moreover, AIIS did not develop its 1997 budget based on the February 19, 1996 organizational charts. From my deposition and that of Ms. JoEllen Rotondi as well as my cross-examination in the Ohio UNE Cost Proceeding, it should have been readily apparent to Dr. Ankum that AIIS does not budget based on organizational charts. As Ms. Rotondi, the person responsible for developing the AIIS 1997 budget, explained at page 12 of her January 16, 1997 deposition, AIIS uses a Responsibility Code (RC) segment mapping report to discretely budget headcount within specific RCs to the individual segments comprising AIIS. During her deposition, Ms. Rotondi was cross-examined as to the nature of some of the specific costs budgeted directly to the unbundling segment. Dr. Ankum, despite the testimony of Ms. Rotondi, applies the general 23.36% reduction factor he derives from the February 19, 1996 organizational

chart to some of the very costs Ms. Rotondi explains. It is apparent that Dr. Ankum chose to ignore these explanations in light of the adjustments he has proposed.

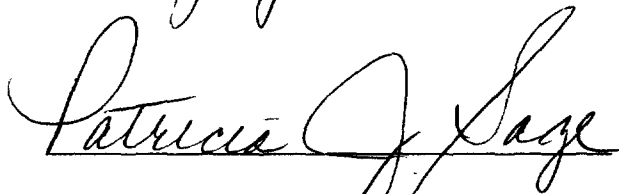
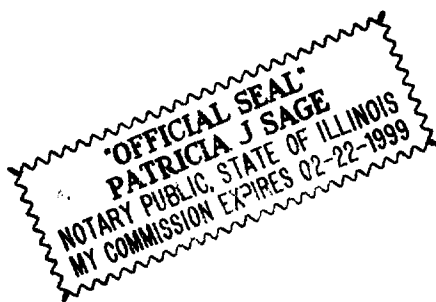
51. My understanding of Dr. Ankum's proposed 8.52% mark-up for common costs is that he calculates his proposed common cost mark-up by multiplying Ameritech's 10.65% common cost mark-up by 80% (1-.20).
52. Dr. Ankum does not perform a specific calculation to support the proposed 20% reduction to the common cost mark-up he advocates. Instead, he makes a number of unfounded and unsupported allegations regarding inefficiencies, inclusion of retail costs, double counting of costs, misassigned costs and inflated allocators to support his proposal.
53. In summary, I do not agree with any of Dr. Ankum's allegations, which either lack credible support or are demonstrably wrong. Earlier in this affidavit and in my May 16, 1997 affidavit, I explain why I believe Ameritech's shared and common costs represent reasonable forward-looking costs. I describe the methodology we used to allocate shared and common costs. I explain that costs have not been double counted and that all retail costs have been eliminated from the shared and common costs ultimately attributed to UNEs. In addition, I have addressed the appropriateness of the specific costs assigned as UNE shared costs.
54. This concludes my reply affidavit.

I hereby swear, under penalty of perjury, that the foregoing is true and correct, to the best of my knowledge and belief.



DANIEL P. BROADHURST

Subscribed and sworn to before me this 18 day of July, 1997.



Notary Public

My Commission Expires: 2/22/99

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JUL - 7 1997

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of

Application of Ameritech
Michigan Pursuant to Section
271 of the Telecommunications
Act of 1996 to Provide In-
Region, InterLATA Services in
Michigan

CC Docket No. 97-137

Joint Reply Affidavit of Robert Crandall and Leonard Waverman
on Behalf of Ameritech Michigan

**Reply Affidavit of Robert Crandall and Leonard Waverman
in Support of the Application of Ameritech Michigan for
Provision of In-Region, InterLATA Services in Michigan**

I. INTRODUCTION

1. In our affidavit in the original stage of this proceeding, submitted on behalf of Ameritech Corporation, we demonstrated that Ameritech's entry into the provision of in-region interLATA service in Michigan would confer substantial benefits on consumers. This analysis was based on our analysis of the current structure and performance of the U.S. long-distance market and a review of the evidence on the results of entry in other telecommunications and non-telecommunications markets whose oligopolistic structure was similar to that of the current long-distance market. We concluded that this evidence showed that large-scale entry into a concentrated market such as that of the current long-distance market would result in lower rates and increased service quality that would redound to the benefit of Michigan consumers.

2. Several affiants have criticized our analysis, contending that interLATA services are currently provided under competitive conditions and that Ameritech's entry would not improve interLATA market performance in Michigan. Specifically, one or more of these affiants criticized our contention that rates are not now at a competitive level and that the current extent of non-price rivalry reflects price-cost margins that are above the level that would exist in a competitive equilibrium. They have also claimed that our analysis of the recent entry of Southern New England Telephone Company (SNET) into interLATA services in Connecticut is incorrect and that this entry has not resulted in lower rates and increased consumer welfare. Finally, they contend that our analysis of the beneficial effects of large-scale entry in other, similarly-concentrated industries provides no useful evidence on the effects of entry into the concentrated long-distance market.

3. We organize our responses to these criticisms in the following manner. First, we address the analytical issues that have been raised over the relationship between price and non-price

competition in the long-distance market. Second, we reply to affiants' assertions that long-distance rates have already fallen to competitive levels. Third, we provide further evidence of the benefits of long-distance competition in Connecticut provided by SNET's recent entry into interLATA services. Finally, we reply to assertions that other examples of large-scale entry into concentrated industries provide no useful guidance to the likely effects of similar entry into long-distance services in Michigan or any other state.

II. RIVALRY IN LONG-DISTANCE SERVICE MARKETS

4. As Peter Pitsch argues, there may be "uncontroverted evidence of intense rivalry among AT&T, MCI and Sprint",¹ but the key issue is whether this rivalry is symptomatic of a competitive market or whether this rivalry is instead oligopolistic rivalry which dissipates rents at the expense of consumer welfare. Any independent reading of the facts shows it is clearly the latter. Pitsch's principal contention is that we fail to understand that this industry is vibrantly competitive because we do not account for the inability of the three principal long-distance rivals to agree on non-price competitive strategies. This surely is a fundamental error, reflecting a misunderstanding of the differences between price and non-price competition. For instance, Pitsch asks "why the Big Three compete away so much money in marketing." The answer is simple and obvious to an economist - marketing campaigns cannot be copied as readily as a simple price cut. Surely, Pitsch would not argue that, say, \$10 million dollars spent by AT&T to mount a telemarketing campaign to offset the results of MCI's similar campaign last week confers the same benefit on consumers as a 5-cents per minute rate reduction on 200 million minutes of residential long-distance calling.

5. Philip Areeda explains the dynamics of non-price competition as follows: "non-price competition can be intense even though the number of rivals is too small to pursue aggressive

¹ Affidavit of Peter K. Pitsch on behalf of AT&T Corp., In the Matter of Application by Ameritech Michigan for Authorization under Section 271 of the Communications Act to Provide In-Region, InterLATA Service in the State of Michigan, CC Docket No. 97-137, (Pitsch Affidavit), p.3.

price competition. Fierce non-price rivalry is often observed in such dimensions as product innovation, product design, advertising, customer service, or marketing. Non-price rivalry offers the oligopolist a greater chance of expanding market share than would a price cut because rivals can match a price cut immediately, but they may not be able to imitate a new product or advertising campaign as quickly - - if at all. Such non-price competition may raise costs by less than a price cut would reduce revenues. Finally, to the extent that non-price rivalry increases real or perceived value to consumers, it supports the oligopoly price more firmly, or even a higher price.”² Indeed, Pitsch inadvertently makes our central point - the nature of rivalry in the interLATA market is consistent only with oligopolistic imperfect competition and several other affiants assist our central proposition: the Big Three are engaged in a strategic imperfectly competitive rivalry. There is no inconsistency on our part, simply a fundamental error of analysis on Pitsch’s part.

6. Pitsch and three other affiants³ suggest that the products offered by the Big Three are not homogeneous but heterogeneous. For instance, Bernheim, Ordoover and Willig assert that “...the market for long-distance services is not “homogeneous” in the sense that Crandall and Waverman mean.... These services are provided by firms who actively seek to differentiate their offerings.”⁴ But surely a voice call from Des Moines to Chicago completed at noon on MCI’s network is identical to one completed on the same day at noon on AT&T’s network if offered at identical quality. It is our understanding that the Big Three are now identical in this respect -- there is no perceptible difference in quality among them. According to Bernard Goodrich, a spokesman for MCI “For the last four or five years, all the long-distance networks have been within mini-hairs of each other on quality,...”⁵ Most of the “active” differentiation among the Big Three is in the variety of price plans, a strategy of imperfect competition which some have labeled “price confusion.”

² Philip Areeda, *Antitrust Analysis*, Boston: Little Brown, 1986, p. 156.

³ B. Douglas Bernheim, Janusz A. Ordoover, and Robert D. Willig; R. Glenn Hubbard and William H. Lehr -- on behalf of AT&T-- and Robert Hall on behalf of MCI.

⁴ Affidavit of B. Douglas Bernheim, Janusz A. Ordoover, and Robert D. Willig on behalf of AT&T Corp., In the Matter of Application by Ameritech Michigan for Authorization under Section 271 of the Communications Act to Provide In-Region, InterLATA Service in the State of Michigan, CC Docket No. 97-137, (Bernheim, Ordoover and Willig Affidavit) at paragraph 222.

7. Because price comparisons across plans are complex, the carriers choose this form of rivalry rather than price reductions of simple list prices. As Hall states in his affidavit, "The task of sifting through all the price plans available each month, determining what fraction of customers will choose each plan, and then calculating the average price is impossibly complex."⁶ **But if the task of determining average prices is impossibly complex for an Economics Professor, it is surely impossible for most consumers to determine the best price.** Professor Hall goes on, "According to Fone saver's Web site ... , there are hundreds of plans available for residential phone use. ... There are also services, such as Fone saver, that will analyze your bill and determine your best plan."⁷ One would not expect that price comparisons for simple voice calls to be "impossibly complex" for a Professor of Economics or require a computer model. The affidavits of the Big Three's economic experts articulate the degree of price dispersion that is evident in the imperfectly competitive interLATA market. For this reason, as we demonstrate below, average rates for residential subscribers have declined very little since 1990 despite the proliferation of discount plans.

8. Pitsch claims that the raising of standard rates, a phenomenon that we contend is inconsistent with vigorous competition in the long-distance market in the face of declining costs, reflects the forces of competition forcing rates up to costs. This unsupported assertion strikes us as odd for two reasons. First, the interstate regulatory regime that constrained AT&T after 1989 did not require it to subsidize consumers that purchased their services at the standard rates. Second, the evidence is clear that AT&T has been raising its standard rates since 1992 or even earlier in some instances. If this were simply an attempt to raise rates to costs in a competitive market, AT&T would have raised rates for smaller consumers all at once, foisting these customers on to any of its rivals who chose to keep their rates below costs. This is not what has happened.

⁵ The Washington Post, July 14, 1993.

⁶ Affidavit of Robert Hall on behalf of MCI Telecommunications Corporation, In the Matter of Application by Ameritech Michigan for Authorization under Section 271 of the Communications Act to Provide In-Region, InterLATA Service in the State of Michigan, CC Docket No. 97-137, (Hall Affidavit), par. 196.

⁷ Hall Affidavit at paragraph 188.

Nor would competition be the reason that the Big Three increased their standard rates in virtual lock-step as the Commission has documented.⁸

9. Pitsch and several others criticize us for not considering the significance of the facilities-based rivals to the Big Three. Never have we seen such competitive importance placed on just 7 percent of the market, the share accounted for by WorldCom and Frontier. While Hall discusses the decline in the fall in the Herfindahl Index (HHI) in the interLATA market, he does not provide an actual calculation of it. In 1995, the HHI was 3500, or nearly double the level required to qualify for the Department of Justice's category of a "highly-concentrated" market, according to its Merger Guidelines. On the other hand, several of the affiants stress the importance of resellers in providing a competitive restraint on the Big Three even though simple resale is not considered to be a sufficient constraint on the RBOCs' pricing power in the Section 271 checklist. For example, Bernheim, Ordovery, and Willig state there are 857 firms in the market, but Hubbard and Lehr demonstrate that more than 840 of these firms are either resellers or facilities-based carriers with less than \$100 million in annual revenue.⁹ A firm with \$100 million in revenues accounts for slightly more than 0.1 percent of annual industry revenues. As these affiants concede, only *one* new, major facilities carrier has emerged since Sprint in the last 15 years. A market with an HHI of 3500, that relies heavily on non price competition, and in which new supply-augmenting entry in 15 years consists of one firm with 5 percent of the market would normally be viewed as very imperfectly competitive, not as very competitive the affiants view interLATA market.

10. Pitsch accuses us of not examining the wholesale market. This criticism is misplaced since we devoted five pages to examining the prices available to resellers to determine if the prices in the wholesale market could constrain the Big Three. As an indication of the concentration of the wholesale market we calculated an HHI based on shares of lit fiber. It is 2,800, almost as high as the value calculated on the basis of revenue shares. We concluded that the prices for bulk capacity available to resellers were high and that these prices were not at AT&T's TSLRIC.

⁸ AT&T Nondominance Order, FCC 95-427, Released October 23, 1995, at par. 82.

⁹ Affidavit of R. Glenn Hubbard and William H. Lehr on behalf of AT&T Corp., In the Matter of Application by Ameritech Michigan for Authorization under Section 271 of the Communications Act to Provide In-Region, InterLATA Service in the State of Michigan, CC Docket No. 97-137, (Hubbard and Lehr Affidavit), Figure 1.

Perhaps Pitsch read past these pages, but we stated emphatically that “[o]ur analysis suggests that AT&T’s TSLRIC lies in the range of 1 to 1.5 cents per minute of long distance service ... this estimate is far below the wholesale rates net of access cost traditionally paid by resellers, but is close to the 1 to 2 cents per minute rate apparently being offered by some IXCs to companies like BellSouth since the passage of the 1996 Telecommunications Act.”¹⁰ Pitsch states that we did not examine the relevant contract and Tariff 12 prices.¹¹ However we did not have access to these prices. Pitsch as a consultant to AT&T did have access to these prices. Since he includes no data or analysis, we conclude that there is no merit to the point and stand by our original results.

11. Pitsch argues that marketing costs are “real costs of educating consumers of their changing options,” and that it “might be nice if consumers miraculously knew of their changing options at no cost, but they don’t.”¹² This view is simply inconsistent with the facts that we have quoted above of strategic price dispersion. As noted by Carlton and Perloff, “Because limited consumer information can lead to higher prices, it may be in a firm’s best interest to create *noise* in the market by charging different prices for nearly identical products...”¹³ The point of the myriad price plans described by Pitsch and Hall is to make price comparisons difficult, but Hall does not discuss why there are two part tariffs or minimum purchase requirements. Pitsch provides data on monthly costs of billing for a customer making one call -- billing costs of \$0.48 and the universal service charge of \$0.50, a total of \$0.98, a fraction of the lowest fixed part of the two part tariff-\$4.95. If the fixed costs of dealing with a customer are \$1.00 why does the so-called competitive market not offer these costs in the form of prices?

12. The Table from Hall’s Affidavit, illustrating just a few of the discount plans is reproduced below.

¹⁰ Affidavit of Robert Crandall and Leonard Waverman on behalf of Ameritech, In the Matter of Application by Ameritech Michigan for Authorization under Section 271 of the Communications Act to Provide In-Region, InterLATA Service in the State of Michigan, CC Docket No. 97-137, (Crandall and Waverman Affidavit) paragraph 107.

¹¹ Pitsch Affidavit at paragraph 32.

¹² Pitsch Affidavit, paragraph 12.

¹³ Carlton, Dennis W. and Jeffrey M. Perloff, *Modern Industrial Organization*, Second Edition, Harper Collins, New York, 1994, p. 579.

Table 1

Available Discount Programs

Carrier	Name of Plan	Terms
AT&T	One Rate Plus	10 cents per minute at any time \$4.95 per month
MCI	MCI One	12 cents per minute at any time or purchases over \$25 per month, 15 cents per minute for first \$25, \$5 minimum
Sprint	Sprint Sense Day Plan	15 cents per minute at any time, no fee, no minimum purchase
WorldCom	Home Advantage	25 cents peak, 10 cents off peak.
Wiltel		10.9 cents per minute at any time, no fee, no minimum
Telco Communications	Long-Distance Wholesale Club	9.5 cents per minute plus \$4.95 per month
VarTec Telecom	Dime Line	10 cents per minute, 3 minute minimum, \$5 per month
Frontier		10.9 cents per minute at any time, no fee, no minimum

Source: Hall Affidavit, p. 48.

We challenge the reader to determine which plan he or she should join if their calling is 10, 50, 100 or 150 minutes per month. The answer is in the Appendix. Professor Hall provides an anecdotal account important to this central point. He attests to having received a \$100 check from AT&T which "upon negotiation, entitled me to receive service from AT&T at 40 percent off its standard rates."¹⁴ Hall thus grants that differences in price for an undifferentiated service -- analogue voice calling -- is based upon negotiation of rates. Is this a reflection of a competitive market?

13. Pitsch relies on a series of non-market prices, an artifact called "the best available offers" to suggest that prices have fallen, but as Professor Hall concludes, determining the "best possible

offer” is an “impossibly complex task,” and these data cannot be relied on as there is no evidence that a considerable body of customers use them. Moreover, these offers appear not to have reduced average residential rates very much since 1990 as we show below.

14. Pitsch argues that non price competition (advertising) is “more readily detected than the price changes themselves.”¹⁵ This is indeed a strange view. The level of prices -- the standard rates -- are similar across the Big Three. Professor Hall acknowledges this.¹⁶ The firms then rely on elaborate and myriad price discount schemes and “negotiation” with customers to discriminate. These discount schemes and their advertising are more difficult to emulate than simple price cuts. The move that Professor Hall describes to simpler price schemes was driven by customer resistance to the complexity of the price schemes. Indeed the simple pricing plans like OneRate did not spread through the long-distance sector until the 1996 Act was passed and the IXC's began to respond to anticipated RBOC entry.

15. There is no disagreement among the affiants that there is substantial excess capacity in long distance facilities. The only disagreement is about the implication of that excess capacity. Hubbard and Lehr state that “...excess capacity for bulk transport is available from multiple suppliers, which *guarantees* the existence of competitive wholesale markets.”¹⁷ Bernheim, Ordoover and Willig at first seem to agree that “...the presence of excess capacity generates forces that are inconsistent with oligopolistic forbearance”,¹⁸ but later admit that “...it is plausible that in some situations excess capacity could enforce a tacitly collusive outcome...”¹⁹

16. Other economists agree that excess capacity facilitates punishment of cheating on pricing agreements, whether explicit or tacit. Tirole states that “It can also be shown that firms benefit from installing capacities which they will not use, but which they would use if the other firm became more ‘aggressive.’”²⁰ Scherer recognizes that the presence of a large amount of

¹⁴ Hall Affidavit at paragraph 196.

¹⁵ Pitsch Affidavit at paragraph 20.

¹⁶ Hall Affidavit at paragraph 129.

¹⁷ Affidavit of Hubbard and Lehr, at 35, emphasis added.

¹⁸ Bernheim, Ordoover and Willig at 115.

¹⁹ Bernheim, Ordoover and Willig at 235.

²⁰ Tirole, Jean, *The Theory of Industrial Organization*, MIT Press, Cambridge (1992), p. 255.

excess capacity guarantees that cheating will lead to deep price cuts.²¹ It is the inevitability of deep prices cuts associated with a large increase in output that restrains real competition.

III. PRICES AND COSTS IN THE LONG DISTANCE MARKET

17. Hall and several other affiants argue that the declining real prices of long-distance service suggest that the market is already competitive and that further entry could not confer benefits upon consumers. Indeed, Hall provides evidence -- based upon confidential IXC data -- that inflation-adjusted interLATA revenue per minute has fallen from \$0.222 per minute in 1990 to \$0.151 in 1995 (1996 dollars).²² We have no access to data that would permit us to verify these estimates, but even if they are correct, they suggest that competition has not reduced residential rates very much and that residential rates are still probably substantially above a competitive equilibrium. In 1995, the average residential interLATA rate in the Ameritech region was about \$0.175 per minute.²³ Using Census data to divide residential from non-residential long-distance expenditures and intrastate long-distance revenues, we estimate the average business interLATA rate in 1995 was \$0.130 (see Appendix 2 Table 1), or more than 25 percent less than the average revenue per minute for residences.²⁴ However, estimated interLATA business spending remained almost constant between 1990 and 1995 while residential interLATA expenditures rose by almost 60 percent. Since 1990-95 was a period of substantial growth, we would expect that business demand for interLATA services grew substantially during the period. Indeed, if business interLATA minutes grew by 4 percent per year while residential minutes grew at double this rate, business rates must have fallen by nearly 25 percent, from an average of \$0.170 per minute to \$0.130 per minute while residential rates declined only from \$0.189 per minute to \$0.175 per minute (see Appendix 2 Table 3). The only way to obtain a contrary result is to assume that business long-distance usage did not increase while residential use increased at six or eight times the growth rate in the economy -- an unlikely assumption. Thus, Hall's data,

²¹ F.M. Scherer and David Ross, *Industrial Market Structure and Economic Performance*, Third Edition, Houghton Mifflin Company, Boston (1990) page 245.

²² Hall Affidavit, p. 45.

²³ PNR data for the Ameritech region.

combined with FCC and Census data, confirm what most Americans may already have surmised – that their long distance rates have not fallen very much since 1990. How else could total residential long-distance spending have increased by 50 percent in five years when the economy was expanding by less than 2 percent per year and the estimated price elasticity of demand is substantially less than unity?

18. Hall next deducts estimates of access charges per minute from his estimates of real interLATA rates, but he assumes that all interLATA conversation minutes require switched access at both ends. In fact, some interLATA minutes are connected by “special access” arrangements. His approach leads him to conclude that the inflation-adjusted margin for IXC’s in interLATA jurisdictions have fallen from an average of \$0.118 per minute in 1990 to \$0.077 per minute in 1995-96 (1996 dollars). We believe this to be an overestimate of the decline because of his assumption about switched access, but a more important point is that the real margin remained at more than \$0.10 per minute in 1995 for the average residential minute, which typically does require switched access at both ends. Recall that we showed that average residential interLATA rates were still \$0.175 per minute in 1995, or about \$0.105 above access charges in current dollars. It is this \$0.105 margin that we and Professor MacAvoy believe to be supracompetitive.

19. Hubbard and Lehr also provide estimates of average revenue per minute based on confidential AT&T data, which – of course – we were not able to evaluate.²⁵ They claim that the average revenue per residential minute declined by 24 percent in real terms between 1990 and 1995. This suggests a decline from about 20 cents per minute in 1990 to just 17.5 cents per minute in 1995 current dollars. In this period, the interstate access charge declined by about 1.1 cents per minute from 7.59 cents per conversation minute to 6.53 cents per minute. Therefore, Hubbard and Lehr’s data suggest a decline in the margin over access charges from 12.4 cents to 11 cents. But even this decline is difficult to square with the spending data cited in paragraph 17 above. For residential rates to have fallen even this much, residential interLATA minutes would have to have increased by 12 percent per year in the 1990-95 period.

²⁴ See the Appendix 2 below. The data are drawn from the *Census of Communications Services* and the FCC.

²⁵ Hubbard and Lehr Affidavit, Figures 3-5.

20. We may argue about whether the margin has increased or decreased in the last several years, but surely the central point is that all the data point to the conclusion advanced in our affidavit. Given that the long distance incremental cost of switching and transmission is only 1 to 2 cents per minute, the price estimates of both Hall and Hubbard and Lehr leave an enormous margin for administrative costs, marketing, and customer service.²⁶ We believe that this margin will shrink substantially when large entrants, such as Ameritech, enter.

21. In addition, Hubbard and Lehr show in their Figure 5 the "Dial-1 Offer Price History" for various categories of residential customers based on their monthly bills. The range for 1995 is from less than 13 cents per minute to about 16 cents per minute. We find this Figure curious in light of our evidence that residential customers were still paying an average of 17.5 cents per minute of interLATA calling in 1995. How could these data reflect actual consumer rates?

22. Hall suggests that we concluded that AT&T's incremental costs are actually in the range of \$0.114 to \$0.124 per minute and that Ameritech's costs would be similar.²⁷ But this misrepresents our analysis. Like MacAvoy, we concluded that incremental switching and transmission costs are in the range of 1 to 2 cents per minute. We were explicit in pointing out that at current prices a large share of AT&T's margin over access charges is absorbed by customer service, marketing costs and the return to capital. Indeed, we found that 2.0 cents per minute of AT&T's costs are devoted to marketing and 1.5 cents per minute are devoted to customer service. Since a large share of these expenditures is devoted to pursuing customers at price-cost margins that are above competitive levels, we explicitly concluded that, "We expect these costs to fall substantially when long distance rates fall in response to entry."²⁸

23. Hall also claims that we were in error in interpreting Census data that show interstate long-distance revenues have risen more rapidly than interstate access charges. While not refuting this statement, Hall claims that we have made a "fundamental error" in interpreting these data, but he never elucidates this "error."²⁹ Indeed, interstate access charges per conversation minute have

²⁶ While the absolute margin per minute may be declining, total relative margin may be increasing.

²⁷ Hall Affidavit at paragraph 215.

²⁸ Crandall and Waverman Affidavit at paragraph 112.

²⁹ Hall Affidavit at paragraph 208.